

Winston H. Hickox Agency Secretary California Environmental Protection Agency

Department of Toxic Substances Control

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Grey Davis Governor

NOTICE OF EXEMPTION

To: Office of Planning and Research P.O. Box 3044 From: Land Disposal Branch 8800 Cal Center Drive

Sacramento, CA 95812-3044 Sacramento, California 95826

Project Title: Hazardous Waste Management Facility, West Contra Costa Sanitary Landfill,

Post-Closure Permit

Project Location: Specific: At the foot of Parr Boulevard, Richmond

City: Unincorporated County: Contra Costa

Project Description: The project is the issuance of a post-closure permit for the Hazardous Waste Management Facility (HWMF) at the West Contra Costa Sanitary Landfill (WCCSL). The HWMF stopped receiving hazardous waste in 1985 and the facility was certified closed by the Department of Toxic Substances Control (DTSC) with waste remaining in place in compliance with the Closure Plan. The Closure Plan required the items listed below to be implemented in order to properly close the facility. With closure certification, state and federal regulations require that a post-closure plan for a 30-year period be developed and implemented by the facility. The post-closure permit outlines the procedures to fulfill these regulatory requirements, which consist of three primary functions:

(1) maintenance of closure structures, (2) environmental monitoring, and (3) maintenance of financial mechanisms to fund the post-closure activities. The specific post-closure activities required to be

- mechanisms to fund the post-closure activities. The specific post-closure activities required to be implemented with the issuances of the post-closure permit are the following:
- Monitor the groundwater for water quality,
- Manage leachate by extracting, treating and discharging it to the West County Wastewater District (WCWD) Wastewater Treatment Plant,
- Monitoring the soil-attapulgite clay slurry wall surrounding the facility, and
- Inspecting, maintaining and repairing the structures at the facility, which include the closed landfill
 and the leachate treatment system.

BACKGROUND

The HWMF is a 28-acre facility within the eastern portion of the 350-acre WCCSL located in Richmond, California. The HWMF is surrounded by the Class II portion of the WCCSL. This area of Richmond is largely industrial. The WCWD Wastewater Treatment Plant is located to the southeast of the HWMF, the Richmond Sanitary Service Corporation Yard is to the east, and San Pablo Creek comes within about 160 feet of the HWMF to the east and northeast. Initial wastes received included demolition debris, municipal solid waste, and industrial waste. In later years, the site was designated to receive hazardous waste.

In accordance with state and federal regulations, closure of the facility was initiated once receipt of hazardous waste ceased. The Closure Plan for the HWMF was originally submitted in 1987, revised in 1991 to address DTSC comments, and again in 1996 and 1999 to incorporate additional data pertinent to closure. The HWMF Closure Plan details the activities that were undertaken to close the facility and maintain and monitor during the 30-year post-closure period.

CLOSURE PLAN

In compliance with the Closure Plan and the Environmental Impact Report (EIR) for the HWMF, both approved by DTSC on May 9, 2000, the following activities were implemented:

- 1. A portion of the landfill cover subgrade (area between the hazardous waste soil surface and the base of the final cover foundation layer) was filled with municipal solid waste material in order to establish proper drainage grades for the final cover. In order to use the municipal solid waste as subgrade fill material at the facility, the West Contra Costa Sanitary Landfill Report of Disposal Site Information was revised in coordination with the Contra Costa Environmental Health.
- 2. The construction and installation of an engineered Resource Conservation and Recovery Act (RCRA) landfill cover was completed while complying with approved quality control/quality assurance procedures described in the Closure Plan involving the following layers of the cover:
 - a. A 18-inch-thick foundation layer consisting of soils free of decomposable organic matter.
 - b. A gas collection system consisting of a network of horizontal gas collectors covering the hazardous waste soil surface.
 - c. A low-permeability barrier layer consisting of a 2-foot-thick compacted soil layer of clay over the foundation layer. The barrier layer was connected to the slurry wall surrounding the site to prevent lateral migration of waste and control the migration of gas and vapor from the waste.
 - d. A textured 60-mil geomembrane was placed on top of the compacted barrier layer to prevent the evaporation of moisture contained in the compacted barrier layer.
 - e. A drainage layer consisting of a 6-inch-thick gravel layer was placed on top of the geomembrane to protect it from damage and act as a drainage layer to provide a path for water to exit rapidly. On top of the gravel layer a layer of geotextile filter was placed to prevent soil from clogging the drainage layer.
 - f. A 18-inch-thick vegetated soil layer was installed on top of the geotextile. The purpose of the vegetative layer is to sustain vegetation that minimizes erosion.
- 3. The remaining construction and upgrades of the leachate collection, removal and treatment systems were completed. The leachate obtained from the subsurface beneath the landfill is being treated at a maximum of 20 gallons-a-minute and discharged to the WCWD Wastewater Treatment Plant located adjacent to the facility. At the WCWD Wastewater Treatment Plant additional equipment was installed to automatically monitor the flows and conductivity of the raw sewage flowing into the treatment plant and, accordingly, control the rate of treated leachate discharge from the HWMF to the treatment plant. This upgraded system has allowed WCCSL to achieve a more exact level of flow pacing, which is the process of discharging leachate by batch to the WCWD Treatment Plant while ensuring leachate quality control.
- 4. With the approval of the Closure Plan and since the upgrades to the leachate treatment system have been in operation, chloride concentrations of the leachate discharged from the HWMF have not altered normal treatment operations at the WCWD Wastewater Treatment Plant. Furthermore, suspected chloride impacts on the WCWD Wastewater Treatment Plant's discharge to East Bay Municipal Utility District's (EBMUD's) Reclamation Plant have been successfully mitigated with the installation of automatic leachate flow pacing controls. The flow pacing process has avoided peak chloride levels and reduced the variations in the HWMF's leachate chloride levels, which are demonstrated in the quarterly and semiannual reports submitted by WCL to DTSC. The flow pacing process will continue during post-closure to ensure quality control of the discharged leachate is maintained.

- 5. Additionally, WCL, EBMUD, City of Richmond and WCWD reached an agreement on the bypass pipeline involving the Class II leachate generated from the Class II portion of the landfill. The agreement indicates that the above mentioned parties will continue to work together regarding the construction of the sludge/leachate bypass pipeline from the WCWD Wastewater Treatment Plant to the City of Richmond wastewater treatment plant. Another separate agreement was also reached between WCL and the City of Richmond to govern the discharge of the leachate to the City of Richmond's Publicly Owned Treatment Works (POTW). Both parties have participated in the design of the system components. WCL has completed their plans for the necessary modifications of the Class II leachate discharge piping system located on WCL property that will connect to the new bypass line.
- 6. The Closure Plan originally discussed the Corrective Action Management Unit (CAMU) Area A and CAMU B, but only the construction of CAMU A was approved. It was indicated in the Closure Plan that if CAMU B is necessary that construction plans would have to be submitted and approved by DTSC before construction. It was decided that CAMU B is not needed. However, CAMU A, constructed south of the landfill, was completed during closure activities and is being used for the placement of solids. The solids accepted in the CAMU are: (1) sludge cake from the leachate treatment system (LTS), (2) decontaminated scrap materials from the decommissioning of the LTS, (3) personal protective equipment, and (4) investigation or maintenance derived waste from the facility. The CAMU liner consists of the following:
 - 2-foot-thick soil foundation layer,
 - 2-foot-thick low-permeability soil layer,
 - 60-mil geomembrane,
 - 1-foot-thick drainage layer,
 - geotextile layer, and
 - 1-foot-thick operations layer.
- 7. The closure certification report was submitted by the facility and approved by DTSC. DTSC found the document in compliance with the California Code of Regulations, title 22, and the approved Closure Plan. With the approval of this document, DTSC certified the facility closed. At this time, post-closure oversight and maintenance responsibilities for the owners of the HWMF, West County Landfill, Incorporated, will begin.

POST-CLOSURE PERMIT

In order to ensure that all of the required post-closure activities occur during the 30-year post-closure period, DTSC required the submittal of a post-closure permit application by West County Landfill, Incorporated. After DTSC determined the post-closure permit application to be complete, DTSC drafted the post-closure permit indicating the post-closure activities required to be implemented. The following are the post-closure activities described in the post-closure permit:

- 1. Monitoring groundwater elevation and water quality at the facility,
- 2. Managing leachate by extracting, treating and discharging it to the WCWD Wastewater Treatment Plant in order to (1) obtain an inward gradient between the groundwater outside of the slurry wall and the leachate inside of the slurry wall and (2) eventually removing all the leachate.
- 3. Managing landfill gas by collecting, treating and venting it,
- 4. Monitoring the soil-attapulgite clay slurry wall surrounding the facility,
- 5. Inspecting, maintaining and repairing the structures at the facility, including the landfill, on a routine basis and after extreme natural occurrences.

- 6. Activities involving CAMU A:
 - The placement of wastes, mentioned in #6 above, into the CAMU along with the placement of cover soil over the waste,
 - The inspection, maintaining and repairing of the CAMU, and;
 - The closure of the CAMU after it reaches its capacity. The closure will involve the construction of the cap, which is discussed in the post-closure permit application referenced in the post-closure permit. The construction of the CAMU cap will be similar to the construction of the landfill cap and it will not affect the landfill. The cap design includes the placement of a foundation layer, 2-foot-thick low permeability soil layer, 60-mil geomembrane, 6-inch-thick gravel drainage layer, geotextile separator and 18-inch-thick vegetative layer.
- 7. Providing a financial mechanism throughout the entire post-closure period to fund the above post-closure activities.

Name of Public Agency Approving Project: Department of Toxic Substances Control Land Disposal Branch

Name of Person or Agency Carrying Out Project: West County Landfill, Incorporated

Exempt Status: Title 14, California Code of Regulations, section 15061(b)(3)

With certainty, no possibility of a significant effect on the environment.

Reasons Why Project is Exempt:

- 1. An EIR was prepared and certified in support of the Closure and Post-Closure Plans. Recent inspections have revealed no failures or malfunctions in the landfill units described below.
- 2. The Closure Certification Report as approved by an independent registered engineer certified that the WCCSL HWMF was built according to the approved plans and is in good working order. These units include; (1) the landfill subgrade, (2) the landfill cover, (3) the drainage trenches, and (4) the final site topography.
- 3. The Closure Certification Report as approved by an independent registered engineer certified that the leachate collection, removal and treatment system was built according to the approved plans and is in good working order. This system consists of collection pipes, sumps, pumps and riser pipes, pumping systems, and the leachate treatment system. In addition, the cover has a gas collection system with the following features: gas collection pipes, riser pipes and gas carbon filter assemblies.
- 4. For the purposes of groundwater monitoring, the DTSC Geological Services Unit has updated and approved the Corrective Action Groundwater Monitoring Sampling and Analysis Plan (SAP) to adequately monitor the site hydrogeology. Major features of the SAP include: a list of Constituents of Concern, Concentration Limits, Monitoring Points, and a Reporting Program.
- 5. There is a corrective action groundwater control system at the facility designed to create an inward gradient of the groundwater level within the slurry wall surrounding the closed facility. This is achieved by the extraction of groundwater from the area within the slurry walls for treatment and offsite discharge to the POTW. The groundwater control system will continue to operate until such time that DTSC has determined that corrective action is no longer necessary.
- 6. The post-closure permit includes provisions to restrict future land uses. Any future use proposals will require both land use decisions by Contra Costa County and evaluation of existing conditions at the HWMF site by DTSC. New use of the site will also require an amendment of the post-closure permit, pursuit to the specific conditions stated therein. Deed restrictions are also in place that limit future use of the property and provide notice of its former hazardous waste landfill uses.

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